ppla

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,673	04/30/2001	Radhika Thekkath	MTEC006/00US	8988

22903 7590 11/14/2003

COOLEY GODWARD LLP
ATTN: PATENT GROUP
11951 FREEDOM DRIVE, SUITE 1700
ONE FREEDOM SQUARE- RESTON TOWN CENTER
RESTON, VA 20190-5061

EXAMINER	
GROSS, KENNETH A	

ART UNIT	PAPER NUMBER
2122	5

DATE MAILED: 11/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/844,673	THEKKATH, RADHIKA	
	Examiner	Art Unit	
	Kenneth A Gross	2122	

-- Th MAILING DATE f this communication app ars on the cov r sh t with th correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-24 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-24 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-10, 16, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, Claim 1 recites, "effecting a predefined tracing control". Is this the same tracing control that was defined by the tracing condition above? Claims 6 and 16 recite "the MIPS32 and MIPS64 architecture". There is a lack of antecedent basis for this claim. The examiner further treats the claimed limitation as "a MIPS32 or MIPS64". Furthermore, acronyms should be spelled out at least once in the claims, as terminology/acronyms are likely to be changed over time. In regard to Claims 10 and 20, the term "G, ASID, U, K, S, DM, and X controls" is unclear. These controls are not clearly defined in the claim, and can be interpreted in the most general way possible. Please clarify the meaning of said controls in relation to how they further limit the method of Claim 1. Furthermore, do Claims 10 and 20 imply the processor is in user mode, kernel mode, supervisor mode, and debug mode all at the same time? By using the AND operator to link all the statements, the claim is implying that tracing is only enabled when the processor is in all the modes at the same time. Claims 2-5 and 7-9 are rejected for being dependent on a rejected parent claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 4-6, 8, 11, 14-16, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Moughani et al. (U.S. Patent Number 5,970,246).

In regard to Claim 1, Moughani teaches: (a) obtaining at least one indication of a tracing condition, wherein a tracing condition defines a tracing control based upon a characteristic of an operating state of a processor (Column 3, lines 53-67); (b) detecting a change in said characteristic of said operating state of said processor (Column 4, lines 1-4); (c) effecting a predefined tracing control based on said detected change in said characteristic of said operating state of said processor (Column 4, lines 5-14 and lines 34-40).

In regard to Claim 4, Moughani teaches that the characteristic is a processor mode (Column 1, lines 35-45 and Column 2, lines 17-23).

In regard to Claim 5, Moughani teaches that the processor mode can be a user or supervisor mode (Column 2, lines 17-23).

In regard to Claim 6, the examiner takes official notice that MIPS32 and MIPS64 architectures are well known in the art, and it would be obvious to use such processor modes in known MIPS technology.

In regard to Claim 8, Moughani teaches that effecting comprises initiating tracing (Figure 6, item 64 and corresponding code).

In regard to Claims 11, 14-16, and 18, Claims 11, 14-16, and 18 are system Claims that correspond with Claims 1, 4-6, and 8 respectively, and are rejected for the same reasons as Claims 1, 4-6, and 8 respectively, where Moughani teaches a system for carrying out said methods of Claims 1, 4-6, and 8 (Figure 1).

In regard to Claim 21, Claim 21 is a product Claim that corresponds with Claim 1, and is rejected for the same reasons as Claim 1, where Moughani teaches a product for carrying out said methods of Claim 1 (Figure 1).

In regard to Claim 24, Claim 24 is a computer data signal Claim that corresponds with Claim 1. Claim 24 is rejected for the same reasons as Claim 1, where a computer data signal is an inherent representation of data stored on any electrical device, such as a computer memory.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2, 3, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moughani et al. (U.S. Patent Number 5,970,246) in view of Alpert et al. (U.S. Patent Number 5,621,886).

In regard to Claim 2, Moughani teaches the method of Claim 1, but does not teach that the indication is obtained via an input control signal. Alpert, however, does teach indicating a tracing condition by use of input from a software control (Column 2, lines 20-22). Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the invention to perform the method of Claim 1, where the indication is obtained via an input control signal, since this allows a user to change the trace mode through a known input device.

In regard to Claim 3, Moughani teaches the method of Claim 1, but does not teach that the indication is obtained via a software-settable trace control register. Alpert, however, does teach indicating a tracing condition by use of a register (Column 2, lines 16-19). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the method of Claim 1, where the indication is obtained via a software-settable trace control register, since this allows the trace condition to be saved and accessed quickly without requesting a mode from a user at each instance of trace.

In regard to Claims 12 and 13, Claims 12 and 13 are system Claims that correspond with Claims 2 and 3 respectively, and are rejected for the same reasons as Claims 2 and 3 respectively, where Moughani teaches a system for carrying out said methods of Claims 2 and 3 (Figure 1).

7. Claims 7, 9, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moughani et al. (U.S. Patent Number 5,970,246) in view of Moyer et al. (U.S. Patent Number 5,812,868).

In regard to Claim 7, Moughani teaches the method of Claim 1, but does not teach that said characteristic is an identity of a process being run on said processor. Moyer, however, does teach effecting two separate trace controls based on separate processes (Column 1, lines 12-28). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the method of Claim 1, where said characteristic is an identity of a process

being run on said processor, as taught by Moyer, since different processes need to be traced in different ways.

In regard to Claim 9, Moughani teaches the method of Claim 1, but does not teach that said effecting comprises inhibiting tracing. Moyer, however, does teach inhibiting tracing when receiving a change of mode (Column 4, lines 26-34). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the method of Claim 1, where said effecting comprises inhibiting tracing, as taught by Moyer, since this allows a mode to be used without interfering with the trace data already collected through another mode.

In regard to Claims 17 and 19, Claims 17 and 19 are system Claims that correspond with Claims 7 and 9 respectively, and are rejected for the same reasons as Claims 7 and 9 respectively, where Moughani teaches a system for carrying out said methods of Claims 7 and 9 (Figure 1).

8. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moughani et al. (U.S. Patent Number 5,970,246).

In regard to Claim 22, Moughani teaches the function carried out by the computer-readable program code as taught in Claim 1 by Moughani. Although Moughani does not teach transmitting the computer-readable program code to a computer, it would be obvious to do so, since, in order to execute the code, it needs to be transferred into the memory of a computer.

In regard to Claim 17, the examiner takes official notice that the code is transferred over the Internet, since the Internet is a well-known medium for exchanging data between computer systems in different physical locations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A Gross whose telephone number is (703) 305-0542. The examiner can normally be reached on Mon-Fri 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q Dam can be reached on (703) 305-4552. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

KAG

TUAN DAM
SUPERVISORY PATENT EXAMINER